THE VETERINARY RECORD

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Edited by WILLIAM HUNTING, F.R.C.V.S.

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THE DUBLIN MEETING.

No more successful meeting of the National Veterinary Association has been held than that over which Mr. Charles Allen recently presided. Everything went without a hitch. The discussions were well maintained, and the use of the lantern with micro-photographs introduced a useful and instructive novelty. The public recognition given the Association was most gratifying, for although the members meet for their own instruction, the subjects debated are usually of a wider value than is covered by their mere technical interest. Each day's proceedings were fully reported in the Dublin daily press, and leading articles of a very appreciative character were written—articles which recog nised the importance of the Association's work and which ungrudgingly gave the veterinary profession the status and importance we claim.

A success of this kind is not attained without work. It requires organisation and a good deal of quiet preparation. To our President and his quiet, firm, business methods must be given a large share of credit for the favourable results. To Mr. M. Hedley, the most energetic local Secretary, fell the heavy part of the preparation, and unfortunately just as he was most wanted, illness struck him down and he was unable to attend. His duties then devolved upon Mr. Finlay Kerr and Mr. J. V. Daly, and the Chairman of the Local Committee, Professor Mettam. No three men could have done better, and they well deserved the vote of thanks given them at the close of the meeting.

The Royal Dublin Society is one of the best friends the veterinary profession has in Ireland. Not only did the Society lend its rooms for our meeting but they gave free admission to all members of the Association to the Horse Show at Balls Bridge. The Phœnix Park Club also did honour to the Association by distributing complimentary tickets to those members who were able to avail themselves of them for their meeting on August 26th and 27th.

Just one word of reprobation. Many members overlook the fact that arrangements are not easily made unless the numbers attending are known in advance. At Mr. Charles Allen's luncheon 25 were present who had given no notice—consequently overcrowding and unnecessary trouble occurred. Last year at Windermere the same thing happened and the dinner was only got through with difficulty. Next year's arrangements at Buxton will be easier if members will give at least a few days notice of intention to be present.

THE CONNEMARA EXCURSION OF THE N.V.A.

On Friday five-and-twenty ladies and gentlemen from among the members started on an excursion to Connemara. A pleasant railway journey ended at Recess. Then a pilgrimage of 17 miles on cars and waggonettes was made, past bare stone mountains, through narrow valleys, fringed with watery peat bogs, and alongside beautiful rivers and lakes. It rained nearly all the way, but the party arrived in good humour at the Hotel at Lenane, where they were packed two or three in a room owing to the crowded state of the place. Fortunately the weather was not hot.

On Saturday after breakfast a long tour was made through the mountains by Lough Fee and Lough Muck to the head of Salrock Bay from which cheerful point you may look out on the Atlantic Ocean. For fishermen and swimmers the locality offers advantages. For others a passing visit will probably be sufficient. The party had lunch at this spot, and probably that has fixed Salrock Bay as deeply on the memory as the natural surroundings. Connemara as we saw it is grand and wild; it is not cheerful. Many beautiful nooks and corners are to be found, but generally it consists of bare, stony mountains, narrow valleys and extensive bogs. Here and there is a small cultivated plot and a miserable stone cottage in which the cultivator and his family exist so long as they are able to keep their hard-won patch from returning to its native wild.

It is sad indeed to see the remains of houses and even villages with walled plots which indicate previous cultivation, desolate, deserted, and again resigned to the hard and ravenous nature of the district. It was well said, that about Dublin the country grew cattle, further west sheep and goats, but furthest west only man. Any Englishman who would spend a week in Connemara would modify his ideas about Ireland and the Irish—and we did not see the poorest and saddest part of the district.

Until someone can put to profitable use bare stone mountains, peat bogs and rushing streams of water it is difficult to understand how human beings can be brought to exist in the land. The hotel keepers do their best, but when every requisite of life has to be carted twenty miles their best requires forbearance.

Still there is scenery, wild and grand and beautiful—well worth seeing, but at a cost to elderly people that should be considered. From Salrock Bay we were rowed down Killary Bay to Bundorragha. This arm of the sea varies in breadth from one to two miles and extends inland for ten or twelve. Its depth permits navigation by large

vessels almost throughout its whole extent. The King on his recent visit sailed up with the fleet. Bundorrhaga consists of a cottage, some steps to land from, and the usual loose stones. From here vehicles carried the party to Doolough a charming spot with a nice clean hotel. Then more miles of road through stones and bogs and mountains, relieved by views which almost made one forgive the rest, and we reached our haven at Leenane.

Sunday was a day of rest and rain. Monday afforded another drive of 18 miles to reach the railway at Westport for train to Dublin. On regaining civilization everyone had forgotten the disadvantages of the tour, remembering only its pleasures, and some (Mark Tapleys) were quite willing to do it all over again.

SPINAL INJURY.

I have read Mr. Jarvis' case of spinal injury and examined minutely his very excellent photographs with more than usual interest, having met with a somewhat similar case a few years ago. This was a thoroughbred taken out of training to be schooled over fences. He was very rough, and after having reared and fallen over it was noticed he went stiffly and carried the tail limply between the buttocks.

When I saw him an hour or so after the tail was completely paralysed (motor and sensory), and the penis hung down without power of retraction with a dribbling of urine. There was no constitutional disturbance, so we at once tried nerve tonics—Nux. vomica and potass. iodid., and in two weeks the penis was in the sheath with the flow of urine stopped. He never, however, could use the tail nor evacute the fæces, although afterwards he won a race or two over sticks.

My diagnosis was fracture with pressure on the cord from effusion, although I could detect no crepitus nor had I seen a similar case.

When last I saw this horse the tail appeared as if sunk between the buttocks giving him a very awkward look.

JAS. KERR CALDERWOOD.

AN "OUTBREAK" OF INTUSSUSCEPTION IN PUPPIES.

In recording the following facts I seek for information as to the cause.

The cases described below occurred amongst a batch of Chow puppies from four different litters all about eight to ten weeks old, all brought up together and in the same way, all kept where access to food (other than that carefully prepared for them) was impossible, and all treated and fed as usual.

The accompanying photograph illustrates three of these cases. I did not have time to prepare and photograph the remaining two, but their post-mortem lesions were similar to these illustrated, and their symptoms were also similar.

Case A.—The patient was noticed to be dull and was given a glycerine enema which brought away a normal quantity of fæces, but of a rather greyish green colour. Later on blood was passed together with very bright yellow soft fæcal lumps. Uneasiness and pain were evinced and vomition was frequent, colourless fluid being ejected. I inflated the intestines with air from a bicycle pump, to the flexible end of which I attached a piece of soft drainage tube, inserting the latter as far as possible (six inches in or so) into the bowel. When the abdomen felt "taut" I massaged it gently, at the same time compressing the anus to prevent the too rapid escape of the air. This appeared to give great relief and I fancy the intussusception was removed at the time, but later the same evening the distressing symptoms returned with frequent fits. The whole of the visible mucous membranes and skin became completely jaundiced in a few hours and the pup died two days later.

Case B.—This pup left my kennels in good health but three days later was sent back for treatment. Fits were frequent and the symptoms were similar to Case A. He was in the last stage of exhaustion when he reached me. The yellow staining of the tissues was very marked and the other symptoms more violent than in Case A, but of a similar nature. He died a few hours after he came in.

Case C.—This pup was noticed to be rather dull for a few days—its tail was kept curled, there was the same disinclination to feed as observed in all the other cases. The tendency to lie flat on the sternum and abdomen was noticed in each instance. I had the Röntgen Rays apparatus applied, but nothing unusual could be discerned. Death occurred in spite of all I could do.

Another of this batch I operated on, using A.C.E. as an anæsthetic and performing laparotomy I carefully pulled out the intussusception, but the puppy died a few hours later, being very much exhausted before it was operated on.

A fifth pup died in the same week showing similar symptoms. Every sort of treatment as given in the textbooks was tried, but none were successful.

I had the contents of stomach etc. analysed by the late Professor Macadam, of Edinburgh, but no cause of an irritant or poisonous nature could be discovered.

The early symptoms were so slight in all these cases that one did not feel justified in operating on a valuable puppy which only showed slight dulness and loss of appetite. The temperature was always normal, the tail curled, the nose wet and cool and the eyes bright, and one had no reason to believe anything serious to be wrong, until it was too late.

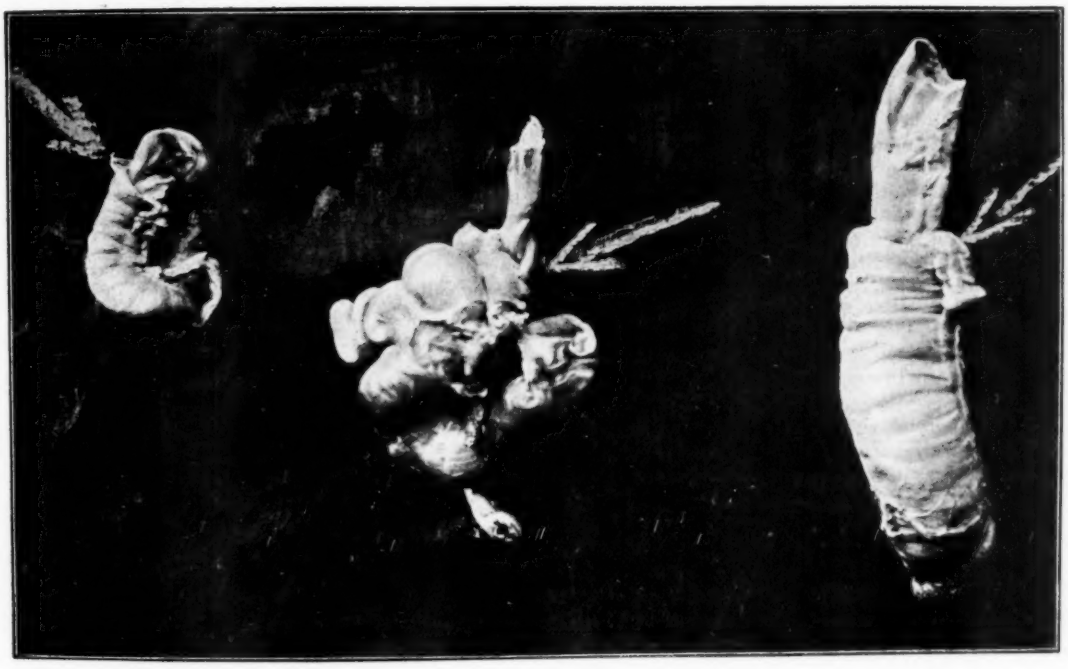
That five pups should have all evinced similar symptoms and all died within one week, points to some definite cause, but no cause was discoverable. I had other pups at the same time and in the same kennel, but these remained healthy, though they were treated and fed in the same way. It is a curious fact that even in the pups which were sold and taken away, the symptoms should have evinced themselves in every case, at about the same time, and that this time was not until two or three days had elapsed from their removal from their companions to another district.

Any help as to the cause, diagnosis, and treatment of this obscure and fatal disease in puppies will be most valuable.

In young puppies diagnosis is especially difficult, owing to the difficulty in feeling the intussusception through the walls of their soft fat abdomens, and the lack of any definite symptoms until it is too late for successful treatment.

A microscopical examination of the intussusception showed a greatly thickened condition of the mucous membrane, which had entirely lost its epithelium and contained young fibrous tissue and many new blood vessels. The whole mucosa presented an appearance similar to that of the organising exudate in chronic pericarditis.

ALEEN CUST.



Case C. *Case B.* *Case A.*

ABSTRACTS FROM FOREIGN JOURNALS.

TUBERCULOSIS OF THE BRAIN IN A COW.

An 8-year-old cow showed the following symptoms: Capricious appetite, uncertain gait, difficulty in rising, alternate coma and excitement. Bergeron found the animal in a fair state of nourishment, it was eating hay slowly, but when it tried to pick up what had fallen into the trough, mastication and deglutition became deranged. When drinking it plunged the muzzle deeply into the bucket and drank until it had to take breath, it did not seem able to drink in small sips from the surface. The head was held low and inclined to the right. The animal rose with difficulty, remaining for a short time upon its knees, if it turned its head to the left it did so slowly and with a tendency to fall upon that side. The movements of the legs were not under control. The temperature was 38° C., and pulse normal.

The tuberculin test gave a positive reaction with a rise of 2·5 C.

Post-mortem showed tuberculosis of the lungs, pleura, and pericardium, the pectoral glands being caseous. In the part of the brain corresponding to the right frontal lobe there was a yellowish growth as big as a walnut with caseous contents.—*Rev. Vét.*

TORSION OF THE RECTUM.

Chanier examined a mare presenting the following symptoms: Distended abdomen, flatulence in the intestines, drawn face, attempts at vomiting without any result, exhaustion, mouth hot and dry, obstinate stoppage which did not yield to enemas or pilocarpine, swaying of the head. When free the mare lay down cautiously, and the pain became more intense with increased flatulence, puncture of the cæcum released a small quantity of gas.

Exploration showed that the rectum was contracted and its lining covered with mucus; on the right was a hard round mass, not the curvature of the large colon but a bend of the floating colon. About 25 cm. in the rectum ended in a *cul-de-sac* formed by a twist from the right to left which was impassable. The temperature fell to 35·7 C., dyspnœa increased, the animal lay upon its back or sat up like a dog, the pulse failed, and death quickly ensued.

Post-mortem showed twist of the rectum, congestion of the intestines and stomach, and symptoms of asphyxia.—*Rec. de Méd. Vét.* F. E. P.

THE DUBLIN PRESS ON THE NATIONAL MEETING.

The general annual meeting of the National Veterinary Association, which opened on Tuesday morning, August 16th, in the Lecture Theatre, of Leinster House, was interesting from several points of view, but especially from the fact that it marked, in a definite way, the striking progress which has been made, in the four years since its establishment, by the Royal Veterinary College of Ireland. Four years ago, as Mr. Charles Allen, President of the Association, reminded the members, the Irish College existed only on paper; "provision was being made for students; the work of teaching had not commenced. To-day it was very much in evidence. It had all the vigour of a thriving and lusty youth, and what the Governors had done was a credit to the profession, and when the College was completed they would have an institution creditable to the country." Sir Christopher Nixon, the President of the College, in his admirable speech at the dinner in the evening, struck the same note. "He thought he was justified in saying, judging from its success—its phenomenal success—not merely in the number of its students, but from the character of the scientific work done in the College, that it was bound to leave its mark upon the progress of the country." It is curious to think that while everybody concerned is so well satisfied with the results of the inauguration of a Veterinary College in Ireland, Irishmen, for several decades, had been asking the British Government in vain for such an institution. The first Chief Secretary who lent a friendly ear to the plea was Mr. Morley, in his second tenure of the Irish office. Previous to that time it was thought quite natural that students from a country especially remarkable for its output of cattle and horses, sheep and pigs, should have to go either to London or Edinburgh to study veterinary science. Fortunately, Irish students, although they still take out their degrees in London, can now go through their course in Dublin; and, by all accounts, with much more educational profit to themselves than in the old days when they had to study either in the English or the Scottish metropolis.

The address of the President was peculiarly interesting, as it touched on several points of great importance at the present time. In its forefront he placed the question, whether or not bovine tuberculosis is communicable to man. He reminded the members that it was the year after they last met in Dublin that Professor Koch propounded his theory that tuberculosis of the lower animals was not the same as tuberculosis in human beings, and that the one could not be transmitted to the other. This startling suggestion was put before the Congress on Tuberculosis held in London with the result that a Commission was appointed to investigate the whole question. The result of the Commission's inquiries, as everybody now knows, was a demonstration that human tuberculosis is transmissible to cattle. "This one conclusion," said Mr. Allen, "invalidates the chief point in Koch's contention, and to his mind the statement that it did not prove the transmissibility of the bovine tuberculosis to man beggared the whole question, since Koch himself, save by denying the fact, had not proved anything. They, however, knew that they had lost valued colleagues from tuberculosis, which they had accidentally inoculated into themselves when making post-mortem examinations, and one positive case was of more value than 10,000 negative cases; for the whole question of transmissibility of a disease from an animal of one species to an animal of another species was not only dependent upon the degree of virulence of the virus, but also upon the susceptibility of the other animal to the infection." He referred to the work of the Cancer Commission, which, he said, veterinary surgeons and students were now able to assist in its important investigations, and to which, in fact, they were contributing very useful and timely information from their own studies and experiences. He also referred to the question of veterinary surgeons serving on juries, and to the satisfactory way in which it had been settled in Ireland.

Sir Christopher Nixon's speech at Tuesday night's banquet was equally suggestive. Sir Christopher was one of the pioneers and founders of the Irish College, and is its President. He has the rare distinction, also, amongst medical men, of realising how important it was in the interests of man as well as of the lower animals, that the veterinary and medical professions should be more closely co-related. Following up this train of thought, he strongly urged, and not for the first time, that the Royal College of Veterinary Surgeons, by every means in its power, should encourage its Licentiates to obtain University Degrees in Veterinary Science. "The Universities," he said, "appeared to be awakening to the importance of recognising veterinary medicine as a branch of University studies. Some of the older, as well as the modern, Universities, are taking steps in this direction. And it would be highly desirable that the College of Veterinary Surgeons should see that the University recognition of the profession was not of a halting kind, but such as was accorded to the other learned professions. The Council of the College would, he felt sure, be prepared to recommend that the standard both as regards curriculum and examination should be raised to the very highest level, and they had then the right of demanding that veterinary medicine should be placed in no invidious position." Leaving this question aside, Sir Christopher dealt with the direct benefit to a country, and especially to an agricultural country like Ireland, of having well-trained veterinary surgeons. "When they bear in mind," he said, "that from two exotic bovine diseases—pleuro-pneumonia and foot-and-mouth disease—the loss sustained in the United Kingdom amounted to nearly £86,000,000, that cattle plague cost the country some six or eight millions, and that the yearly loss from preventible diseases in animals in India amounts to some six millions, he ventured to say, regarding the question merely from an economic standpoint, however high a value might be put upon the services rendered to the public and the State by the exercise of human medicine, these services could not compare with the influence exercised upon the material prosperity of the country by veterinary science properly and efficiently directed." This is a remarkable tribute to the possibilities of veterinary science. And he made it, as his speech shows, with special reference to the Irish College, whose work he knows perhaps better than any other man.—*The Freeman's Journal.*

Mr. Charles Allen, in his Presidential Address to the members of the National Veterinary Association, touched on very many topics of such great interest and in such an interesting way that we cannot hope to do justice to his remarks or comment upon them adequately in the space of a leading article. Not so long since the veterinary surgeon was known throughout the length and breadth of the land as the horse doctor, and the term was applied as a piece of humour. The veterinary surgeon has been very surely and very rapidly improving his professional status. He is no longer the "horse doctor," he is a fully fledged scientist, who does not confine his attention to cattle and horses, but takes into his purview even the human being. Mr. Allen's address is one of the best of its kind we have ever read. He deals with many subjects, and he treats them in a way that will appeal to the general public. One question which he raised in the most definite form must not be overlooked. Prof. Koch, the great German scientist

declared at the London Congress on Tuberculosis that tuberculosis of the lower animals was not the same as tuberculosis in man. Now, if this were true, it would follow that tuberculosis could not be communicated from what we may style the animal to the human kingdom. The President assailed this hypothesis and maintained the transmissibility of bovine tuberculosis. This is a very suggestive and valuable passage in the address. "They, however, knew that they had lost valued colleagues from tuberculosis which they had accidentally inoculated into themselves when making post-mortem examinations."

We are not competent to deal with the very subtle question raised by the President whether the transmissibility of a disease from one animal of one species to an animal of another is or is not dependent upon the degree of virulence of the virus or upon the susceptibility of the "other animal" to infection. Taking the ordinary commonsense view of the problem, we should say that all animals eaten by man act very directly upon the health of man, just as we should say that all vegetables grown largely by the aid of animal deposits act upon the health of man. The President is apparently of our mind, for he says that to his mind it would, indeed, be remarkable if the tubercle bacillus, as found in the tissues and organs of bovines, did not differ essentially from such as found in man, but they should accept, as he believed was the case, that if the virus was removed from the ox and placed in other media and under other conditions, the organism might then come to resemble other species and be treated in a precisely similar manner. If this means anything it means that the beasts of the field and the man in the street have a great deal to say to each other's health, and that the veterinary surgeon is nearly as important a personage so far as the ordinary citizen is concerned as the Fellow of the Royal College of Pysicians or Surgeons.

Sir CHRISTOPHER NIXON in his speech at the banquet last night made a very strong plea for the alliance of all the departments of medicine and surgery. "Veterinary medicine," he declared, was most closely allied with the profession of which he himself is a distinguisned practitioner. The connection between the two branches of the profession he emphasised, and he pointed out that veterinary science was of special importance in an agricultural country like Ireland. Here is a statement which is well worth reproducing, coming as it does from a very great authority. From two exotic bovine diseases —pleuro-pneumonia and the foot-and-mouth disease— the loss sustained in the United Kingdom amounted to nearly eight-six millions, while cattle plague annually costs the country some six or eight millions. Sir Christopher Nixon made it perfectly apparent that the medical doctors thoroughly recognised that veterinary science was part and parcel of medical science, that its practice was necessary, not only for the comfort and for the health of the animal in the field, but also for the comfort and health of the man in the town.—*The Irish Times.*

BEST HORSES FOR ARMY USE.
IRISH THE BEST IN THE WORLD.

The proceedings of the Veterinary Congress were resumed on Wednesday, Aug. 17, in the Lecture Theatre of the Royal Dublin Society's premises, Kildare Street. The chair was occupied by the President, Mr. Charles Allen, and there was a fair attendance.

Mr. W. HUNTING read a paper on the subject of Army Horses. He said the subject was one that would be popular in Ireland, and if the rules of the service had not prevented it a member of the Army Veterinary Department would have written the paper. The Army, he went on to say, required chargers, troopers, artillery, and transport horses, and also mounted infantry cobs and mules. With regard to the first named, the general type might be described as long, washy, peacocky, with too much knee action to give a pleasant ride or afford any staying capacity. It was a type which all breeders of horses should avoid. The trooper showed the form and action which suggest work in the saddle. Instead of initiating new departures with a view to the breeding of this class, it would be better to direct and develop the private enterprise which now existed. As the class of artillery horse was gradually replaced on tramways and disused in omnibuses it would soon not be bred at home. For light draught the artillery horse was a good model, and with regard to the mounted infantry cob, it was, he believed, a class of animal introduced by the South African war. As to selection, the question was discussed whether the Government should stimulate the breeding of horses by permitting the purchase of remounts at three years old, but it was pointed out that the result would be a glutted market, and the young animals would have to be fed and trained in centres which, even with the greatest care, might soon become the hotbeds of contagious disease. For the good of the Army and the help of Agriculture it would be more profitable to increase the price paid for four or five year old horses. Those selected for war service should be aged horses in hard condition, which would be able to do three times the work of the sound young horses, which went to South Africa only to be killed in a few days. The writer of the paper having mentioned some matters relating to the keeping of horses in good condition, concluded by saying that, although home production, particularly that of Irish riding horses, the best in the world, might be assisted, the collection of horses for the Army from all parts of the world was, although expensive, the only practical method. The Veterinary and Remount Department might with a section of transport men be combined to form a horse department.

A discussion on the paper was opened by Mr. William Pallin, who said that Ireland was the field to produce the proper type of horse, and in sufficient numbers to supply the army in peace times, provided judicious organisation was used. He suggested a scheme of resident country agents to induce farmers to co-operate with the authorities in the matter.

The speakers who followed included Captain Martin, Mr. Mason, Mr. Sampson, and others.

At three o'clock the members of the Congress attended at the Royal Veterinary College, Ballsbridge, where they were received by Sir Christopher Nixon, on behalf of the governors. Having inspected the building, they assembled in one of the halls of the College to witness a lantern and microscopic demonstration given by Professor Mettam. The subject dealt with was the origin of parasitic diseases in horses.

Sir Horace Plunkett received the members of the Association at 8 o'clock in the evening at the Science and Art Department Museum, Kildare Street, and was present at a conversazione given in their honour. The band of the D.M.P. attended and rendered agreeable musical selections during the evening. A tour of the building was also made.

To-day (Thursday) an excursion will take place to Bray.—*The Irish Daily Iudependent and Nation.*

The Veterinary Congress on August 17th discussed a subject with which we ourselves in the past have dealt repeatedly. No Irishman will need to be told that in Ireland there is a wide field for the breeding and the raising of a class of horse eminently suitable for military purposes. Mr. W. Hunting, who read a paper dealing with the matter, emphasised this point. What is wanted for the Army is not a showy horse, but a compact animal—one, that is to say, whose "family history" justi-

fies the belief that he will withstand the wear and tear incidental to every campaign. The "long, washy, peacocky" horse condemned by Mr. Hunting cuts a very respectable figure at ceremonial functions, but on service he is almost wholly useless. Mr. Hunting is of the opinion, and here we find ourselves in cordial agreement with him, and in place of seeking to perpetuate the present race of troop horse by increasing the facilities for his production, the national aim should be directed to the development of private enterprise, which is concerned with the breeding of animals of the class which our experiences in South Africa have shown us to be most fitted for "roughing" it. The endurance of the Boer ponies is proof that the best strain of blood is by no means necessary in a remount One speaker, who had considerable experience of remounts in South Africa, insisted, indeed, that no horses in the campaign did better than those taken up by the authorities from a London omnibus company. The 'bus horse, in addition to being inured to hard work, was aged, and to this particular fact must be attributed his ability to stand hard work and hardship. If the authorities take this lesson to heart they will gradually cease the purchase of three-year-olds, and will increase the contract price for five-year-olds horses. Mr. Hunting gave one very good reason why the Government should not seek to encourage the breeding of horses by the mere purchase of three-year-olds. Not only would a large number be thrown on the market, a considerable percentage of which would find no buyer, but the young animals would have to be collected into horse camps in order to facilitate feeding and training—a proceeding which would subject them to the risk of contagious disease. So far nothing definite has been decided upon in regard to the manner in which the remount of the future is to be procured. Mr. Hunting paid a handsome tribute to the qualities of the Irish saddle horse, and added that there was only one method, an expensive method too, by which the supply was to be kept up. Continental powers procure their remounts from various sources, and Mr. Hunting argues that we should do the same. We do not profess to be grounded sufficiently in the subject to pronounce an opinion off-hand; but almost any breed of horse, one would say, would prove more serviceable in the field than some of the "peacocky" animals one sees in the streets of Dublin. Before the authorities go to the Continent, however, they might first of all ascertain what the productive capacity of Ireland is in the matter of remounts, and whether a scheme could not be devised to place their breeding and their purchase upon a thoroughly business-like basis. At the present time at least half the number of horses bred in this country are bred with no particular object in view beyond that of obtaining for them a good price at an early age. If the man who breeds horses in this haphazard fashion could feel sure that by taking certain measures he would be in a position to command a regular market, he would undoubtedly put himself in the way of falling in with the official scheme. Before we speculate upon what Ireland can do in the production of the remount it is necessary that the authorities should state exactly the type they require, the age, and the maximum and minimum purchase prices. When that has been done the casual and the regular breeder both will be in a position to ascertain for themselves whether breeding horses for the Government is likely to prove a profitable occupation. Once this point has been determined satisfactorily the military authorities, after a few years, will find no scarcity in the supply in Ireland of the most suitable type of remount.—*Irish Times.*

Professor M'FADYEAN has been elected a correspondent of La Société Centrale de Médecine Vétérinaire, (Paris).

NOTE ON THE CO-RELATION OF SEVERAL DISEASES OCCURRING AMONG ANIMALS IN SOUTH AFRICA.

(Continued from page 130.)

HEARTWATER.

High bred goats and sheep are exceedingly liable, in certain areas of Cape Colony, to a disease known as Heartwater. The areas within which this disease exists begin at the coast in the Eastern Province and extend inland irregularly for some distance. In the animals which die of this disease it is common to find a considerable quantity of pale, yellow serous effusion in the pericardium. The epi- myo- and endocardium commonly show little or no departure from the normal. The pleural cavity may contain some yellow serous fluid or may be empty. The lungs may be almost normal, or there may be some exudation found in the interlobular tissue. While the lungs as a whole may be quite pale in colour there may be found irregular sharply defined chocolate-coloured patches of congestion. There may also be found more or less of gastro-enteritis, and in cases running to the full term the gall bladder may be distended with more or less inspissated bile which, while usually of a deep bottle-green, may be sometimss brown in colour.

The incubation period after the intravenous inoculation of a clean goat with 5 c.c. to 30 c.c. of the blood of an animal dying of the malady is as a rule about ten days. This period, however, may be greatly diminished or extended; from a few days up to nearly three weeks in some cases.

From the point of view of experimental infection the results, which I have obtained from experiments conducted on nearly five hundred goats, are paradoxical in the extreme. When I first began my investigations I used goats which were born and reared on a farm, near Grahamstown, which was believed to be outside of the area infected with the disease. On infected farms the mortality during the summer season is very high, but no unnatural mortality had occurred on this farm during the past ten years at least. The material used for purposes of infection was the blood taken from animals dying of the disease at Koonap and at Somerset East. The blood was either simply defibrinated or mixed with a small quantity of a solution of neutral citrate of potash. I was unable to find that either had any advantage over the other as an infecting agent.

Subcutaneous injection of doses as large as 40 c.c. almost always failed to produce death although some oscillation of the temperature of the inoculated animals was observed.

Intravenous inoculations of doses up to 30 c.c. were uncertain.

Where the animals inoculated in this way developed the disease and died, there was no certainty that their blood would produce the virulent disease in others. Failures have occurred even with the injection of 100 c.c. into the jugular vein. In some cases blood which was drawn from inoculated animals, which did not themselves die, proved capable of setting up the virulent disease in others.

As further indicating the paradoxical nature of the malady I may add that in by far the greater number of these goats which had resisted inoculation it was proved that an inoculation of even a much smaller dose of blood at a later date or exposure of the animals in an infected veld was attended with the production of the malady followed by death. I felt, therefore, that these goats, which largely resisted infection, although not being immune, had acquired what one might term a modified resistance or acclimatisation.

This is the more probable from the following circumstance. Mr. Thomas Hoole, a well-known breeder at Highlands, made a purchase of a considerable number of goats from a district of Somerset where the disease is known to be absent. After purchasing he sold part to Mr. L. White, whose farm lies many miles distant. After these goats had been placed on the respective farms they began to die of heartwater, while contrarily the animals belonging to the place did not die. On both farms heartwater occurs. I may further add that the ordinary Boer goat is practically insusceptible to the malady, and that the pure bred Persian goats possess a high degree of insusceptibility to natural infection.

In some parts where the disease only occurs to a slight extent, I have had it reported to me by the farmer as being Gall-sickness, thus called as the gall bladder is often very much distended with bile.

Since that time I have imported all goats by train from a clean area in Somerset, and in these animals I have found it much easier to keep up a strain of infection from animal to animal. Still, however, inoculation frequently fails, and I felt constrained to report to my Government that goats evidently were not the proper animal host for the contagium of this malady.

In sheep the conditions are practically the same.

In my Annual Report for 1896 observations were made which at a later date were communicated to the Royal Society (vol. 65) showing that the germ of redwater or Texas fever may remain latent in the blood of cattle for long periods of time after their recovery from an attack of the malady, and that cattle born on redwater veld, although they may not have been affected by this malady, yet can and do carry infection in a latent form in the blood. During my investigations into heartwater I began to have suspicions that something of the same nature was concerned in regard to the latter malady.

The following experiments show in how far these suspicions were verified :—

Experiment 1.—To prove that the contagium of Heartwater may be communicated to a susceptible animal in a non-virulent form and passed in succession through several others, eventually being raised to a full virulence in the passage.

I obtained a number of clean goats by train from a clean area and enclosed them in a court-yard which, in turn, was bounded by stone walls, Along one side of this yard galvanised iron enclosures were erected, into which the animals were placed while under experiment. The most rigorous care was exercised in regard to cleanliness of the place, each shed being at frequent intervals thoroughly cleaned and disinfected.

While I have found that horse-sickness blood can be preserved by the addition of an equal volume of glycerine and water containing 1 per 1000 of Phenol, so that it retains its virulence for at least three years, the blood of goats dying of heartwater when so treated loses its virulence in a few days time. Such preserved blood does, however, almost always set up a slight oscillation of the temperature in animals inoculated with it.

Goat No. 252 was inoculated with 10 c.c. of glycerinated blood taken from an animal which had died of heartwater. The injection of this material was made subcutaneously on September 5th, 1901. No febrile change was observed until 21st September. On this day the temperature rose to 107 F. in the middle of the day, but regained the normal on the following day.

Goat No. 258 was now inoculated with 100 c.c. of the blood of No. 252. Some irregularity of temperature was produced, but no definite reaction, and on the 9th October (being the fourteenth day after inoculation) it was bled, and

Goat No. 265 was inoculated subcutaneously with 100 c.c. of its blood, and with 25 c.c. injected into the jugular vein. On the following day there was a sudden elevation of temperature to 106·4, and on the fifth day the animal died of characteristic heartwater. The two previously inoculated animals remained meanwhile in seemingly good health.

Experiment 2.—To prove that Goats Nos. 252 and 265, through which the virus had been transmitted while in a non-virulent form, were in no degree protected thereby against subsequent inoculation with virulent virus.

Goat No. 266 was inoculated on October 10th with 100 c.c. of the blood of 265 by subcutaneous injection, and with 20 c.c. injected intravenously. On the 8th day the temperature ran up to 105·4; following days 104·8, 106·4, 104·4, when it died of heartwater.

[*Note.*—During the progress of these experiments clean goats were always kept with the experimental ones, and at the close of the experiments they were all inoculated with virulent blood, and all died of heartwater.]

Goat No. 252 which had been inoculated, as already seen, with non-virulent blood, was now inoculated on the 22rd October with 30 c.c. of the blood of No. 266, by intravenous injection. On the 6th day the temperature rose to 104·4; following days 107·6, 107·4, 106·6, when it died of typical heartwater.

Goat No. 258 which also had been already inoculated 28 days previously with non-virulent blood, was now inoculated on October 23rd with 30 c.c. of the blood of No. 266 by intravenous injection. On the 7th day the temperature rose to 107·4; on the 8th day to 103·6, when the animal died of typical heartwater.

Goats Nos. 218 and 219 were each inoculated in the same manner as controls, and in both cases the temperature began to rise on the eighth day afterward, and death occurred on the eleventh.

In the above experiment it is seen that the virus, which had originally passed through Goats Nos. 252 and 258, and was by that means raised to virulence, actually killed these animals when re-inoculated into them after its accession to virulence had been achieved. Hence heartwater virus of which the virulence has been lowered does not necessarily afford protection to animals which have been inoculated with it.

Experiment 3.—To prove, in such cases as those of animals Nos. 252 and 258, that an inoculation with weakened virus actually predisposes to subsequent infection with virulent blood.

In both of the above cases it is to be noticed that the incubation period was shortened as compared with the "control" animals, and I have further to add that this observation has been abundantly confirmed in a vast number of other cases.

Transmission from Goats to Cattle.

A clean ox from a sweet veld area was inoculuted by the injection of 5 c.c. subcutaneously, and 5 c.c. intravenously of blood from a goat which was dying of heartwater. On the 15th day after inoculation the temperature began to rise, reaching during the evening to 106·4. During the five days subsequent it was maintained about 105 F. without remission, but the following morning it fell to 101·8, and on the same evening ascended to 107·2. It died two days later. In making a post-mortem examination I found the pericardium filled with fluid; there was some interlobular pulmonary infiltration, and indeed there were produced conditions similar to those we are accustomed to find in goats dying of heartwater. On the 16th day of the disease it was bled, and after defibrination of the blood a goat was inoculated by the injection of 10 c.c. subcutaneously and 10 c.c. intravenously. This goat died seventeen days later of typical heartwater. The type of fever induced in cattle by the inoculation

of horse-sickness blood is practically the same as that obtained by the inoculation of the same species of animal with heartwater blood. The post-mortem conditions are likewise identical, and agree in all particulars with those found in the endemic disease occurring in cattle and known to the Kafirs as Imapunga, while having shown typical cases to experienced transport riders they have assured me that it is known to them as Veldsickness. As I have already said, Karroo cattle coming to the coast are liable to become attacked, the coast cattle remaining in perfect health. Transport-riders assure me that cattle from those coast areas can travel throughout the whole of South Africa, except in Tsetse fly belts. I have ascertained that this disease occurs on the velds on which heartwater is known to exist.

The Co-Relation of Veldsickness and Heartwater.

Experiment 5—To determine the relation of Imapunga or Veldsickness in cattle to Heartwater in goats.

With blood taken from a Graaff-Reinet calf dying of veldsickness I inoculated Goat No. 312 on December 16th by the intravenous injection of 30 c.c. of the blood. The temperature began to rise on the 5th day, and the animal died on the 15th day of heartwater. The post-mortem conditions were absolutely typical of heartwater occurring spontaneously among goats.

Goat No. 327 was inoculated in the same manner with the blood of Goat No. 312 on December 30th, and died on the 17th day of heartwater.

Goat No. 331 was inoculated in the same manner with the blood of No. 327, and died on the 15th day of similar symptoms. I could not detect the slightest difference between those cases and cases of heartwater produced either spontaneously or by inoculation.

Experiment 6.—To show that goats born and reared on a farm infected with veldsickness are not so susceptible to that disease as are goats which have been reared on a clean veld.

Goat No. 305, from a farm on which veldsickness exists, was inoculated on the 24th November by intravenous injection of 20 c.c. of the blood from a calf which died of veldsickness. A slight reaction followed immediately and soon subsided. On the 18th January it received intravenously 30 c.c. of the blood of No. 327 at the same time as No. 331 of the previous experiment. While this goat remained unaffected, the clean goat, No. 331, died.

Experiment 7.—To show that goats reared on a farm infected with veldsickness are relatively insusceptible but not immune.

Goat No. 315 from a veldsickness-infected farm, was inoculated on the 14th December with 10 c.c. injected subcutaneously and 10 c.c. intravenously of the blood of a calf which died of veldsickness. A slight febrile reaction of short duration followed. On the 12th January it received 30 c.c. intravenously of the blood of No. 327, and as a result died of the disease on the 13th day. (This result is in agreement with what we find obtaining among goats running on a heartwater veld when these are inoculated with heartwater.)

Observation 8.—Goats reared and running on a farm infected with veldsickness are relatively insusceptible to heartwater.

In my prefatory remarks I allude to the fact that goats purchased on the farm of Mr. G. Palmer (which is a veldsickness-infected farm) were relatively insusceptible to Heartwater, but not immune, since although they very frequently resisted the intravenous injection of heartwater blood, yet if a second inoculation was made at a later date they commonly succumbed.

Experiment 9.—To prove that goats relatively insusceptible are not actually immune.

In almost every case where one of the goats from Mr. Palmer's farm, inoculated with virulent blood either from Somerset Station, Koonap, or that obtained by me from experimental goats, has withstood the intravenous injection of virulent blood I have found:—(1) That they have been actually infected although showing no signs of disease, since with their blood I have been able to infect susceptible goats, which in some cases have died of the virulent malady. (2) That if, after unsuccessful inoculation, they are allowed to remain in the Institute for several weeks, a subsequent intravenous inoculation of virulent blood is almost always successful in producing the disease and death.

Observation 10.—Goats, on farms in this and adjoining areas, reared and living there, are relatively insusceptible.

I have already referred to the experiences of Messrs. Hoole and White, which suffices as evidence in this respect.

Co-Relation of Horse-Sickness to Heartwater, to Veldsickness in Cattle, and to a Condition known as Veldsickness in Horses.

If horses which have been reared in the Karroo are brought down to the coast areas it is usual to find that they fall off in condition, and in some cases die. From what I have heard and seen I am constrained to believe that this condition is that which was referred to in the report of Lieut.-Colonel Joshua Nunn, F.R.C.V.S., A.V.D., to the Director-General of the Veterinary Department of H.M. War Office in 1888 as the Biliary form of horse-sickness. Among the farmers it is, however, commonly referred to as veldsickness.

In my communication to the Royal Society (Vol. 67) I referred to the results which I had obtained by the inoculation of donkeys with the blood of animals dying of horse-sickness, and thereafter using the donkey's blood for the inoculation of horses.

Since that communication was made I have been able to extend experiments of that class, and the results may be summarised as follows:

1. The reaction produced in the donkey is no guide to the result which may follow the inoculation of its blood into a clean horse. The reaction may be slight or may be fatal.

2. If the donkey's blood is drawn at the tenth day and used to produce in a clean horse a violent reaction, then the blood of the same donkey if drawn two or three days later (without any further re-inoculation) will cause a much more violent reaction and possibly death from virulent horse-sickness.

[This proposition (2) is not stated clearly.—Ed. *V.R.*]

3. If a mild reaction is produced it may be of the nature of high temperature with remissions, or if still milder, may have a lower degree of fever with long intermissions.

In the case of animals which suffered from the last form of fever, it was always noticed that they fell off in condition to a remarkable extent, becoming mere skeletons.

If killed or dying as late as the fiftieth day, one found evidence of horse-sickness in the form of exudation of serous material into the subcutaneous tissues, the interlobular tissue of the lungs, into the mesentery, the pleural cavity and sometimes into the peritoneum. In the interventricular groove of the heart one always found some serous exudation, and the vessels lying here were always opaque owing to an infiltration into the vascular coats. The condition might be regarded as a sort of chronic horse-sickness.

The inoculation of 10 c.c. of heartwater blood into a clean horse produced similar phenomena, the animal dying two months after inoculation.

I have only made a few inoculations with heartwater into horses, and in some cases even a large dose (50 c.c.) has only produced a transient febrile reaction.

During the war, camps were formed for the receipt of farmers' horses, and reports reached me that horses running in some of these camps were dying in large numbers from "poverty," "scab," etc., and as these camps are infested with veld-sickness, it seemed to me that probably they were suffering from the "chronic form of horsesickness" which I had experimentally produced.

On the 29th December I proceeded to the protection camp of Thorn Park in this district, accompanied by the local officers, Mr. E. White and Mr. Dalton. I saw no dead animals, as these had been already buried, and therefore decided to shoot anyone which I might see in a poor condition. After several hundreds had galloped by, I determined upon one which seemed poor enough, although it galloped quite freely. One of the officers then managed to bring it down with a rifle shot, and we at once proceeded to make a post-mortem examination.

1. The subcutaneous tissue was not invaded to any definite degree by exudation, although along the lines of the great vessels in the neck there was evidence that it had existed, but had coagulated and was now in process of absorption, leaving tough lines of dry exudations 2. The pleural cavity contained about one gallon of a clear yellow serous fluid. 3. The lungs showed patches of congestion, some of which were deep liver-coloured. There was a definite amount of sub-pleural infiltration of serous fluid. There was also a widespread condition of interlobular infiltration of serous exudation. 4. The pericardium or heart-sac contained about 40 ounces of clear yellow or straw-coloured serous fluid and some masses of coagulated gelatinous material produced by the coagulation of the fluid. 5. The base of the heart was surrounded by a huge gelatinous mass, and the interventricular groove was filled up by the same material. 6. The aorta and the larger vessels of the interventricular groove were invaded by the exudation, and the latter were rendered absolutely opaque, looking like white clay pipestems lying in a jelly. 7. Some fluid was also found in the peritoneal cavity, but no other characteristic pathological lesion was found.

Two days later Mr. Dalton proceeded to another camp and, having shot a horse there, brought to me the heart and lungs *en masse*. The conditions found here were identical with the foregoing case but rather more aggravated in type. I regard these and similar observations which I have made as indicating that the condition which I produced in clean horses, by heartwater blood inoculation and also by the injection of the blood of horse-sickness-inoculated donkeys, is of the same nature as that which existed among the horses of the protection camps. In cases where I carried my experimental inoculations so far as to produce perfect protection against horse-sickness, the animal immediately thereafter began to put on flesh.

Transmission of Horse-Sickness to Goats.

As I have already said, the inoculation of even a large dose of heartwater blood into a horse may fail to be attended with any very definite result.

Conversely the inoculation of horse-sickness blood into goats was attended with uncertain results. In my first experiments out of seventeen inoculated at different times, a febrile reaction occurred in only ten, and none died. These goats, however, were obtained from Mr. Palmer's farm. Since then I have used absolutely clean goats, and have had further success.

On the 7th March, 1902, I inoculated Goat No. 381 with 20 c.c. of fresh horse-sickness blood by intravenous injection. It died three days later. On post-mortem examination I found an enormous interlobular exudation in the lungs and pericardium. In the latter the whole exudation was absolutely solid.

This remarkable result is somewhat to be compared with experiments which I made a few years ago in inoculating a goat and a sheep with the serum of a "salted" goat which had been re-infected by inoculation a week previously. The sheep and goat were inoculated in the forenoon and were found dead the next morning with symptoms very similar to those just recorded.

With the blood of Goat No. 381 I now inoculated No. 383 by intravenous injection of 5 c.c. of defibrinated blood on the 9th March. Some fever followed, and on the tenth day it had a temperature of 106, making, however, a good recovery. On the 20th March, I bled this goat and inoculated No. 393 with 5 c.c. by intravenous injection. After an incubation period of six days the temperature began to rise, and the animal died on the sixteenth day. On making a post-mortem examination I found the usual signs of heartwater. No. 393 was used to inoculate No. 408, which died on the 14th day. No. 408 was used to inoculate No. 411, which died on the 13th day. No. 411 was used to inoculate No. 419, which died on the 11th day.

This experiment, which has been carried out with every care as regards the keeping of control animals in contact during the experiment and subsequently showing by inoculation that the controls were still susceptible to virulent infection, permits me to say that horse-sickness can be transferred to goats, and that, when acclimatised to the goat, it produces in this animal a virulent disease which is indistinguishable from the endemic disease of goats which is known in South Africa as heartwater.

Heartwater produced by the inoculation of the blood of *protection camp horses*.—I was enabled to get a protection camp horse sent into the Institute, and while there I bled it and inoculated Goat No. 365 with 30 c.c. intravenously and 30 c.c. subcutaneously on the 11th February. On the 7th day the temperature rose and remained high, 105 F., slightly over, until the 11th day when it fell to 101, and the animal then died.

On making a post-mortem examination I found œdema at the base of the heart of a semi-transparent character extending up the aorta. The lungs were pale, but the left had a dark patch of congestion about two inches in diameter, being sharply circumscribed within a group of lobules. The pericardium was quite filled with a clear, yellow serous fluid which quickly coagulated when transferred to a glass. The conditions found were thus absolutely typical of what one obtains in ordinary heartwater.

I therefore conclude that the contagium which causes horsesickness in the Equids of South Africa is responsible under conditions of relative virulence, for the infection of other species of the domesticated animals.

The means by which the virulence becomes relatively altered is not entirely clear.

My colleague, the Colonial Entomologist, has been able to produce heartwater in goats and calves at Cape Town by means of the progeny of bont ticks taken in the Eastern Province from infected goats. In this way, therefore, the very striking observation of the late Mr. Webb has been proved to be correct. We are not, however, yet able to say that heartwater is not conveyed by any means other than the bont-tick.—*Agricultural Journal*, Cape Town.

Two animals, one a valuable three-year-old mare, grazing in a field at Penmark, were found shockingly maimed. The three-year-old had the sinews of the hind leg completely severed, and the other horse was also badly cut. Mr. A. C. Stewart, V.S., of Cardiff, pronounced the three-year-old, which is of superior breed and an excellent animal, to have been rendered permanently unfit for work. The injuries in each case were clean-cut knife wounds

DISEASES OF ANIMALS ACTS 1894 TO 1903. SUMMARY OF RETURNS.

Period.	Anthrax.		Foot-and-Mouth Disease.		Glanders (including Farcy)		Rabies. Cases Confirmed.		Swine Fever.	
	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Dogs.	Other	Out-breaks.	Slaughtered *
GT. BRITAIN. Week ended Aug. 27, 1904	8	15	..	..	36	50	..	..	26	55
Corresponding week in 1903 ..	10	12	..	..	37	70	..	..	14	90
Corresponding week in 1902 ..	11	18	..	..	24	56	..	..	12	45
Corresponding week in 1901 ..	4	8	..	..	37	60	..	..	33	125
Total for 35 weeks, 1904	668	1056	..	..	1068	1879	..	..	996	4576
Corresponding period in 1903 ..	545	832	..	..	1026	1683	..	..	1109	5688
Corresponding period in 1902 ..	476	768	1	120	784	1395	12	11	1215	5500
Corresponding period in 1901 ..	434	618	12	669	930	1585	1	1	2661	12834
IRELAND. Week ending Aug. 20, 1904	..	..	..	..	..	..	..	..	13	96
Corresponding Week in 1903 ..	..	..	..	..	1	1	..	..	6	134
Corresponding Week in 1902 ..	..	..	..	..	1	1	..	..	10	97
Corresponding Week in 1901 ..	..	..	..	..	..	..	..	..	12	153
Total for 34 Weeks, 1904	2	2	..	..	8	29	..	..	139	2889
Corresponding period in 1903 ..	2	3	..	..	2	3	2	..	121	2741
Corresponding period in 1902 ..	..	..	..	..	7	26	..	..	133	2669
Corresponding period in 1901 ..	1	2	..	..	4	4	1	1	186	3201

Board of Agriculture and Fisheries, August 30th, 1904.

Epizootic Lymphangitis, Week ending Aug. 6, 1 case.

Department of Agriculture and Technical Instruction for Ireland, (Castle Street), Dublin, Aug. 25th, 1904.

NOTE.—The figures for the Current Year are approximate only. * As Diseased or Exposed to Infection.

GLANDERS AND FARCY.—COUNTY COUNCIL PROSECUTION.

At the Epping Petty Sessions on Friday, before W. S. Chisenhale Marsh, Esq. (in the chair), W. Patchett, Esq., N. S. Lawrence, Esq., R. Palmer, Esq., and A. W. Leech, Esq., Messrs. Charles Webster, Limited, general carriers, of 6, Whitechapel Road, E., and Home Farm, Chigwell, were summoned for causing to be led, on July 18th, a horse suffering from, or suspected of being affected with, glanders.

Mr. Tabrum prosecuted on behalf of the Essex Council Council; and Mr. F. V. Welch defended.

Harry Ellis, carman, in the employ of Messrs. Charles Webster, 3, Mill Lane, Bow, said he removed a brown gelding to Chigwell by the order of the foreman. The horse had a discharge from its nose, and he washed it.

Mr. Whitecross, M.R.C.V.S., an inspector of an insurance company with whom the defendants insured, said he saw the brown gelding and another horse at the Home Farm, Chigwell, on July 20th, both suffering from glanders. He informed the horsekeeper, and the horsekeeper said he knew what was the matter. He should say the symptoms of glanders were apparent on July 18th. The condition of the horse was more than suspicious when he saw it on the 20th.

George Upton, the County Council veterinary inspector, said he found two horses suffering from glanders on the farm and one suffering from farcy. He ordered them to be destroyed.

By Mr. Welch: The symptoms might have appeared to an ordinary person to be those of an ordinary cold.

For the defence, John Ramsey, the inspector at Bow, said the horse was sent to Chigwell as he considered it was suffering from a cold. There was a slight swelling of the glands and a discharge from the nose. Cases of glanders had occurred at their stables, but he did not consider this case as suspicious. Any suspicious cases would be reported to the authorities.

Charles Webster, director of the Company, said every precaution was taken against glanders or farcy in the stud. In ordinary cases of illness the horses were sent to Chigwell. All suspicious cases were reported, and, if necessary, the horses were destroyed. They would not be sent along any road.

William Reeder, foreman horse-keeper to the defendants, said on July 18th he sent the horse to Chigwell. The horse had had teeth extracted, and appeared to be suffering from a cold.

Edgar Harvey, farm bailiff, Chigwell, said on the 18th July, when the horse arrived, he signed the receipt which said "To be kept under observation." It was isolated according to the usual custom.

Mr. Henry Edgar, veterinary surgeon, Leytonstone, said he went to Chigwell to inspect the brown gelding in question on July 24th. It was suffering from glanders. The nose was ulcerated. The ulcers were very recent. In his opinion there might not have been any evidence of glanders on July 18th.

Mr. Welch submitted that the case could not be proved against the Company, because before there could be a conviction knowledge must be proved. A company could not have knowledge.

The Bench upheld this contention, and dismissed the case.

John Ramsey, the Company's inspector at Bow, was summoned for causing the horse to be removed.

Charles Fry, inspector under the Contagious Diseases (Animals) Act, said Ramsey told him that Mr. Carroll, veterinary surgeon, directed the horse to be removed to Chigwell.

Defendant said when a horse appeared to be ailing it

was sent to the farm at Chigwell. He gave the order that the horse should go to Chigwell. In doing this he was carrying out the instructions of Mr. Carroll, the veterinary surgeon.

Charles Webster said if any doubtful case arose at the stables a veterinary surgeon was called in. Ramsey had to obey the instructions of the veterinary surgeon.

The case was dismissed.

Ramsey was further summoned for causing a horse suffering from farcy to be removed from Southwark to Chigwell.

Defendant admitted that he sent the horse to Chigwell, and said it had a wound on the hind leg. He did not examine the horse carefully.

Evidence was given as to the farcy, and Mr. Edgar veterinary surgeon, said the case was not an ordinary one, and a horsekeeper would not recognise it.

In this case Ramsey was fined £5 and costs.

Edgar Harvey, farm bailiff at the Home Farm, Chigwell, was summoned for not notifying cases of glanders and farcy on the farm, and was fined £2 2s. and costs. *Essex Times.*

Case of Anthrax in Hampshire.

A middle-aged man named George Simpson, of East Meon, Hants, is at present lying at the Royal Hants County Hospital suffering from anthrax. The disease appeared in his right arm, and the limb has been amputated in the hope that the course of the disease may be stayed. Simpson developed the disease, it is thought, through helping to skin and dress a bull, the flesh of which was sold in Portsmouth on August 13th, and the hide of which has been disposed of and cannot so far be traced. The bull was penned for some time at Ripling ton Farm, East Meon, and was the property of Mr. Wren, a gentleman farmer; when it was sold it showed no sign of the disease, nor was anything noticed when it was slaughtered on the farm; but, as some other animals about the premises have since died, strong suspicion has been attached to the bull. Efforts are being made, through the Portsmouth Hide and Skin Company, to trace the hide.—*The Times.*

Our Live Stock Population.

A gratifying feature of the new returns is an addition of 155,734 to the head of cattle in Great Britain, thereby raising the total to 6,860,352. A part of this is due to an increase of 90,472 in the number of cows and heifers in milk or in calf, the total of which now stands at 2,678,680. On the other hand, there is another deplorable loss of sheep, due mainly to the bad lambing season. The crop of lambs this season is returned as just over ten million head in Great Britain, or, more accurately, 10,012,664, this being 288,143 fewer lambs than last year. Of sheep of all kinds, including lambs, the total of 25,207,174 is 432,623 less than in 1903. It is satisfactory to note that there is an increase of pigs to the extent of 175,083 although on breeding sows the returns show a decrease of 7,844, or quite 2 per cent. less than last year. We repeat in summarised form the various items relating to live stock:—

	1904. No.	1903. No.	
Cattle	6,860,350	6,704,618	increase 155,744.
Sheep	25,207,174	25,639,797	decrease 432,623.
Pigs	2,861,644	2,686,561	increase 175,083.

Board of Agriculture.

It is reported that Mr. Stewart Stockman has been selected by the Board to succeed Mr. A. C. Cope, whose time for retiring is approaching.

OBITUARY.

ANDREW HUNTER, M.R.C.V.S., Newcastle-on-Tyne.
Graduated, Edin: April, 1873.

We regret to announce the death of Mr. Andrew Hunter, M.R.C.V.S., which occurred, after a very brief illness, at his residence, 5 Higham Place, Newcastle, on Thursday, Aug. 25th. The deceased gentleman was a native of this city, and was only 53 years of age. Many years ago his grandfather established a farriery business on a site in the Forth, where the Central Station now stands, and this was afterwards carried on by the deceased's father in other parts of the town. It then descended to his brother, Mr. Henry Hunter, who had qualified as a veterinary surgeon, and who was afterwards joined by the deceased as a partner. The premises since the business has been in their hands were at first in the Scotch Arms yard in Newgate Street, afterwards in Westgate Road, and finally in Northumberland Place, being eventually extended to New Bridge Street, where the firm have for years carried on a large horse and carriage repository and horse-shoeing forge, as well as practising as veterinary surgeons.

As a young man, Mr. Andrew Hunter attended the Royal (Dick) Veterinary College in Edinburgh, where he was a successful medallist, and where he took the diploma of the Highland and Agricultural Society of Scotland in April, 1873, and immediately afterwards that of a Member of the Royal College of Veterinary Surgeons, London. Subsequently he became a partner with his brother, and had a very important practice as veterinary surgeons in Newcastle and throughout the two counties. His opinion as an expert was frequently sought in law cases where expert evidence was necessary. He had many friends, by whom he was greatly respected, and who will hear of his sudden and comparatively early demise with deep regret.

Mr. Hunter complained of being unwell on Monday evening, and on Tuesday his medical attendants found him to be in a serious state of health with a very acute attack of pneumonia, to which he succumbed, as stated. He leaves a widow, one married and two unmarried daughters, and a son.

In the presence of a very large assemblage of mourners and sympathisers, the remains were interred on Sunday afternoon, in St. Andrews Cemetery, North Road. The cortege, which was a very long one, left the residence at half past two, and on arrival at the cemetery was joined by a further large number of friends who had gathered to pay a last tribute of respect to one who was worthily and widely esteemed. The mourners included many relatives and friends, Mr. Clement Stephenson, Mr. H. S. Elphick, M.R.C.V.S., and many employées and ex-employées of the firm. There was a very large number of handsome wreaths and other floral tributes. —*The Newcastle Daily Journal.*

CORRESPONDENCE.

THE JURY LISTS—EXEMPTION.

32, Essex Street, Strand, London.
31st August, 1904.

Dear Sir,

Will you kindly allow me to so far trespass on your space as to remind your readers that the Jury lists will be out by the time this letter appears, and that claims for exemption should be made at once and lodged with the Overseers of the Parish. It is sufficient for the claim to be in writing addressed to the Overseers, and to set out the applicant's name and address and ground of application. I append a form by way of example.

The recent judgment of the Divisional Court did not decide the question whether a veterinary surgeon is

exempt from service on juries, it only affirmed the opinion of the Justices that it had no jurisdiction to deal with their finding. The result of this is that every Bench of Justices will have to decide for itself, and on the last occasion several Benches allowed the objection of veterinary surgeons to serve.

The general public opinion seems to be in favour of the exemption, and if the matter is persevered in and not allowed to drop, I have every hope that legislation on the subject will place the privilege beyond doubt. I trust therefore that your readers will all put themselves not only to the trouble of making the claim but also of attending to support it.—Yours faithfully,

GEO. THATCHER.

FORM OF CLAIM OF EXEMPTION FROM SERVICE ON JURIES.

To the Overseers of the Parish of *St. Mary, Islington*, in the County of *London*.

I, *John Smith*, of *No. 34, George Street*, in the Parish of *St. Mary, Islington*, in the County of *London*, M.R.C.V.S., Veterinary Surgeon, hereby give you notice that I object to my name being placed on the list of persons liable to serve on Juries on the ground that I am exempt by reason of being a medical practitioner in actual practice.

Dated this *5th September*, 1904.

Yours faithfully,

(Signed) *John Smith.*

THE STATUS OF THE PROFESSION.

Sir,

Some of your correspondents overlook the absolute fact that a man, be he a veterinary surgeon, medical man, lawyer, parson, or even a mere tradesman, is treated by the intelligent public according to the standard that he makes for himself; if he be a cad he will be treated as a cad; if he be a gentleman, although a veterinary surgeon or etc., he will be treated as a gentleman. It is true that money improves matters and is a power when all other things are equal. Also education, both mental and social, assists; it softens his manners and elevates his mind, and is less likely to make him peevish about his surroundings or his station in life.

A veterinary surgeon who is disgusted with his low status in the social scale is generally one who thinks the public ought to retrogress and lower its level to that of his own.

It is true that "you cannot make a silk purse out of a sow's ear." Still if the mountain will not come to Mahomet, Mahomet must go to the mountain.

If a man desire to raise his social status he must do it himself, and I am of the opinion that his profession will assist him if he perseveres.

"OPTIMIST."

"VOMITION IN THE HORSE."

Sir,

In last week's *Veterinary Record* I noticed an article under the above heading which suggests that Mr. Williamson has not seen many cases of gastric tympanitis. Every symptom mentioned points to this trouble. Standing in the stable for some days receiving a full allowance of corn, the vomition commencing about four hours after food, the scraping with the fore feet, and cold skin, all point to tympany of the stomach.

There are several statements made by Mr. W. which seem to me very peculiar. In the first place he says the horse "*curved his neck in the usual concave or ewe necked shape.*" Now, I have always been of the opinion that in vomiting a horse curved his neck in a *convex* manner and drew his nose in to his chest. The reverse of ewe necked. Again, many horses eject fluid from their nose in gastric tympanitis without any of the movements usually described as accompanying vomition. A cold sweat generally breaks over the animal and is alternated by dry stages.

I cannot agree with Mr. Williamson that the animal showed no signs of abdominal pain, for pawing with the fore feet and a distressed look on the face is surely evidence of pain when accompanied by vomition.

One sensible part of his treatment in my opinion lay in the fact that he gave no medicines (at least liquid medicines) and therein lay the secret of the quick recovery. No better method to cause a horse's stomach to burst could be conceived than to pour one or more drenches into it when it is already distended to such an extent as to allow of regurgitation up the œsophagus.—I am, yours truly,

FLUIDUM.

VETERINARY CONFERENCE AT SANITARY CONGRESS AT GLASGOW.

Sir,

I regret to find that in my letter to you, published on the 6th ult., I should have laid the blame on the wrong persons. In that letter I said that the vice-presidents did not turn up at the Glasgow University at 9.30 a.m. to the Congress of Veterinary Inspectors to be held in the Conveyancing Room on 29th July. It is correctly stated by Professor Dewar that he and Messrs. Begg and Allan were forward at the hour appointed and at the room mentioned in the notice, but some person had shifted the meeting room. After hunting about the above mentioned gentlemen found this room and were then informed that they would not be required for the business that they had been called for, as it had been decided to get privately the names of those desirous of discussing the papers. My information was that no vice-president had turned up to the meeting at 9.30 a.m., and to a certain extent this is correct, but when we are furnished with the whole story it would be a decided mistake to leave the blame where I placed it. I exceedingly regret having hurt the feelings of any of the vice-presidents, and I can assure them that they have the sympathy of the Glasgow practitioners, in the rather small part they were allowed to play in the arrangements of our section from beginning to end. Prof. Dewar's letter brings to my recollection that it was rumoured at one time that he was to contribute an article at the Congress of Veterinary Inspectors. It would be interesting to hear from him if this rumour was correct, and if so why it fell through.

OUTCAST.

A COMMUNICATION.

Sir,

You had *The Staffordshire Sentinel* of the 20th June containing a case of cruelty—why should the profession not have the opportunity of reading the same? Are you debarred by the parties interested?

FAIR PLAY.

[We have no recollection of the case to which our correspondent refers. That we did not reproduce it is doubtless due to our opinion that it was of no special importance. The impertinent question as to whether we were "debarred by the parties interested" in not producing it is answered by the publication in a lay paper. It was made public, and we have not the vaguest idea now what it was about. If "Fairplay" gave evidence we regret that we did not advertise his opinion. If it reflected upon a neighbouring practitioner we are sorry, by omitting to pillory his rival, not to have pleased our correspondent.—ED.].

COMMUNICATIONS AND PAPERS RECEIVED.—Miss A. Cust, Messrs. H. G. Bowes, G. Thatcher. A.V.D.

The Yorkshire Post, The Newcastle Daily Journal, The Irish Times, The Irish Daily Independent and Nation, The Freeman's Journal.